

# CDN Resource Laboratories Ltd.

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## REFERENCE MATERIAL: CDN-ME-1505

Recommended values and the “Between Lab” Two Standard Deviations

<i>Gold</i>	<i>1.29 g/t</i>	$\pm$	<i>0.11 g/t</i>	<i>30 g FA, instrumental</i>	<i>Certified value</i>
<i>Silver</i>	<i>360 ppm</i>	$\pm$	<i>12 ppm</i>	<i>30 g FA, gravimetric</i>	<i>Certified value</i>
<i>Silver</i>	<i>370 ppm</i>	$\pm$	<i>17 ppm</i>	<i>4-Acid / ICP</i>	<i>Certified value</i>
<i>Copper</i>	<i>0.049 %</i>	$\pm$	<i>0.004 %</i>	<i>4 Acid / ICP</i>	<i>Certified value</i>
<i>Lead</i>	<i>1.87 %</i>	$\pm$	<i>0.07 %</i>	<i>4 Acid / ICP</i>	<i>Certified value</i>
<i>Zinc</i>	<i>0.720 %</i>	$\pm$	<i>0.034 %</i>	<i>4 Acid / ICP</i>	<i>Certified value</i>

*Note:* Standards with an RSD of near or less than 5% are certified; RSD's of between 5% and 15% are Provisional; RSD's over 15% are Indicated. Provisional and Indicated values cannot be used to monitor accuracy with a high degree of certainty.

**PREPARED BY:** CDN Resource Laboratories Ltd.  
**CERTIFIED BY:** Duncan Sanderson, B.Sc., Licensed Assayer of British Columbia  
**INDEPENDENT GEOCHEMIST:** Dr. Barry Smee., Ph.D., P. Geo.  
**DATE OF CERTIFICATION:** January, 2016

### **METHOD OF PREPARATION:**

Reject ore material was dried, crushed, pulverized and then passed through a 270 mesh screen. The +270 material was discarded. The -270 material was mixed for 5 days in a double-cone mixer. Splits were taken and sent to 15 commercial laboratories for round robin assaying.

### **ORIGIN OF REFERENCE MATERIAL:**

Standard CDN-ME-1505 is made from gold / silver ore extracted from underground mine operations located in the Pozo Almonte Region of Tarapaca, Chile.

**Approximate chemical composition (from whole rock analysis) is as follows:**

	Percent			Percent
SiO <sub>2</sub>	78.3		K <sub>2</sub> O	0.6
Al <sub>2</sub> O <sub>3</sub>	2.2		TiO <sub>2</sub>	<0.1
Fe <sub>2</sub> O <sub>3</sub>	5.1		LOI	4.7
CaO	1.2		S	1.6
Na <sub>2</sub> O	1.1		C	<0.1
MgO	0.5			

### **Statistical Procedures:**

The final limits were calculated after first determining if all data was compatible within a spread normally expected for similar analytical methods done by reputable laboratories. Data from any one laboratory was removed from further calculations when the mean of all analyses from that laboratory failed a t test of the global means of the other laboratories. The means and standard deviations were calculated using all remaining data. Any analysis that fell outside of the mean  $\pm 2$  standard deviations was removed from the ensuing data base. The mean and standard deviations were again calculated using the remaining data. This method is different from that used by Government agencies in that the actual “between-laboratory” standard deviation is used in the calculations. This produces upper and lower limits that reflect actual individual analyses rather than a grouped set of analyses. The limits can therefore be used to monitor accuracy from individual analyses, unlike the Confidence Limits published on other standards.

### **Assay Procedures:**

**Au:** Fire assay pre-concentration, AA or ICP finish.  
**Ag:** Fire assay pre-concentration, Gravimetric Finish, and 4-acid digestion, AA or ICP finish.  
**Cu, Pb, Zn:** 4-acid digestion, AA or ICP finish.

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**Results from round-robin assaying:**

	Lab 1	Lab 2	Lab 3	Lab 4	Lab 5	Lab 6	Lab 7	Lab 8	Lab 9	Lab 10	Lab 11	Lab 12	Lab 13	Lab 14	Lab 15
	Au g/t	Au g/t	Au g/t	Au g/t	Au g/t	Au g/t	Au g/t	Au g/t	Au g/t	Au g/t	Au g/t	Au g/t	Au g/t	Au g/t	Au g/t
ME-1505-1	1.23	1.29	1.26	1.20	1.38	1.39	1.29	1.34	1.36	1.34	1.16	1.32	1.30	1.28	1.22
ME-1505-2	1.28	1.34	1.28	1.26	1.32	1.35	1.33	1.34	1.36	1.27	1.24	1.39	1.24	1.27	1.32
ME-1505-3	1.27	1.24	1.26	1.27	1.36	1.37	1.26	1.24	1.36	1.27	1.24	1.15	1.28	1.27	1.43
ME-1505-4	1.34	1.26	1.33	1.25	1.32	1.33	1.32	1.32	1.38	1.26	1.23	1.24	1.25	1.25	1.36
ME-1505-5	1.28	1.35	1.28	1.28	1.34	1.39	1.31	1.28	1.35	1.36	1.25	1.30	1.29	1.22	1.23
ME-1505-6	1.32	1.39	1.22	1.19	1.33	1.33	1.32	1.39	1.37	1.28	1.28	1.28	1.29	1.24	1.55
ME-1505-7	1.26	1.25	1.27	1.22	1.29	1.33	1.27	1.36	1.27	1.26	1.22	1.48	1.27	1.29	1.27
ME-1505-8	1.24	1.30	1.29	1.19	1.27	1.37	1.31	1.33	1.30	1.32	1.25	1.41	1.23	1.22	1.29
ME-1505-9	1.32	1.30	1.27	1.22	1.45	1.32	1.31	1.36	1.40	1.29	1.21	1.29	1.18	1.28	1.26
ME-1505-10	1.24	1.29	1.35	1.28	1.41	1.35	1.30	1.25	1.38	1.27	1.28	1.41	1.27	1.23	1.21
Mean	1.28	1.30	1.28	1.24	1.35	1.35	1.30	1.32	1.35	1.29	1.24	1.33	1.26	1.26	1.31
Std. Devn.	0.0377	0.0471	0.0372	0.0363	0.0561	0.0258	0.0213	0.0504	0.0398	0.0355	0.0350	0.0968	0.0362	0.0275	0.1072
% RSD	2.96	3.63	2.90	2.93	4.17	1.91	1.64	3.82	2.94	2.75	2.83	7.30	2.87	2.19	8.16
Gravimetric	Ag g/t	Ag g/t	Ag g/t	Ag g/t	Ag g/t	Ag g/t	Ag g/t	Ag g/t	Ag g/t	Ag g/t	Ag g/t	Ag g/t	Ag g/t	Ag g/t	Ag g/t
ME-1505-1	340	363	372		356	361	356	359	364	368	354	357	358	365	352
ME-1505-2	339	360	374		363	359	358	366	358	373	343	361	347	361	346
ME-1505-3	344	358	374		357	361	359	362	357	374	344	354	341	359	339
ME-1505-4	329	358	370		365	360	356	355	362	375	338	360	360	358	342
ME-1505-5	331	358	370		359	363	359	358	366	373	335	353	358	365	354
ME-1505-6	338	361	372		360	363	360	359	357	362	341	362	354	358	358
ME-1505-7	336	360	371		361	360	357	355	362	368	334	361	349	360	347
ME-1505-8	337	360	368		357	360	357	368	361	379	338	353	353	360	360
ME-1505-9	345	356	372		351	359	358	361	358	370	334	358	358	357	348
ME-1505-10	345	359	376		361	360	360	358	359	381	342	357	350	365	349
Mean	338	359	372		359	360	358	360	360	372	340	358	353	361	349
Std. Devn.	5.50	1.95	2.38		3.97	1.53	1.49	4.28	3.10	5.58	6.06	3.41	6.05	3.12	6.70
% RSD	1.63	0.54	0.64		1.11	0.43	0.42	1.19	0.86	1.50	1.78	0.95	1.72	0.86	1.92
Instrumental	Ag g/t	Ag g/t	Ag g/t	Ag g/t	Ag g/t	Ag g/t	Ag g/t	Ag g/t	Ag g/t	Ag g/t	Ag g/t	Ag g/t	Ag g/t	Ag g/t	Ag g/t
ME-1505-1	386	373	372.1	381	>300	369	363	369	359	363	347	364	385	371	>100
ME-1505-2	382	374	371.2	380	>300	370	365	360	360	364	352	379	365	367	>100
ME-1505-3	371	368	366.8	388	>300	370	366	360	359	366	355	385	378	376	>100
ME-1505-4	385	371	367.4	389	>300	370	360	361	363	365	360	379	371	374	>100
ME-1505-5	372	370	369.5	378	>300	365	366	370	361	357	337	377	380	367	>100
ME-1505-6	383	368	367.4	390	>300	366	363	367	359	374	354	375	376	375	>100
ME-1505-7	372	376	363.3	379	>300	367	362	345	367	365	353	384	387	376	>100
ME-1505-8	377	367	369.8	364	>300	369	360	356	364	374	359	372	376	372	>100
ME-1505-9	387	385	367.6	386	>300	363	367	370	362	365	364	383	382	370	>100
ME-1505-10	387	373	367.1	378	>300	365	361	342	362	357	356	376	378	379	>100
Mean	380	373	368	381		368	363	360	362	365	354	377	378	373	
Std. Devn.	6.58	5.28	2.52	7.67		2.47	2.58	9.98	2.59	5.73	7.51	6.28	6.46	4.00	
% RSD	1.73	1.42	0.69	2.01		0.67	0.71	2.77	0.72	1.57	2.12	1.66	1.71	1.07	

Notes: Ag Fire Assay Gravimetric data from laboratory 4 was not reported.  
 Ag Fire Assay Gravimetric data from laboratories 1 and 11 was removed for failing the t-test

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	Lab 1	Lab 2	Lab 3	Lab 4	Lab 5	Lab 6	Lab 7	Lab 8	Lab 9	Lab 10	Lab 11	Lab 12	Lab 13	Lab 14	Lab 15
	% Cu	% Cu	% Cu	% Cu	% Cu	% Cu	% Cu	% Cu	% Cu	% Cu	% Cu	% Cu	% Cu	% Cu	% Cu
ME-1505-1	0.048	0.050	0.050	0.051	0.051	0.049	0.049	0.047	0.052	0.047	0.047	0.047	0.049	0.050	0.048
ME-1505-2	0.048	0.051	0.050	0.051	0.050	0.048	0.049	0.046	0.050	0.052	0.046	0.048	0.049	0.050	0.046
ME-1505-3	0.049	0.049	0.049	0.051	0.050	0.048	0.049	0.046	0.051	0.048	0.045	0.049	0.049	0.050	0.047
ME-1505-4	0.047	0.050	0.050	0.051	0.051	0.048	0.049	0.047	0.051	0.050	0.046	0.048	0.048	0.050	0.047
ME-1505-5	0.048	0.050	0.050	0.050	0.051	0.048	0.050	0.047	0.051	0.047	0.046	0.048	0.050	0.050	0.050
ME-1505-6	0.048	0.051	0.050	0.051	0.050	0.048	0.051	0.046	0.050	0.050	0.047	0.048	0.049	0.051	0.047
ME-1505-7	0.048	0.049	0.049	0.050	0.051	0.048	0.049	0.046	0.051	0.052	0.046	0.048	0.049	0.050	0.048
ME-1505-8	0.048	0.051	0.050	0.050	0.051	0.047	0.049	0.047	0.050	0.051	0.046	0.048	0.050	0.050	0.049
ME-1505-9	0.050	0.051	0.049	0.050	0.050	0.048	0.049	0.047	0.051	0.050	0.046	0.049	0.050	0.050	0.049
ME-1505-10	0.048	0.050	0.049	0.051	0.050	0.048	0.049	0.045	0.050	0.052	0.046	0.047	0.049	0.050	0.048
Mean	0.048	0.050	0.050	0.050	0.051	0.048	0.049	0.046	0.051	0.050	0.046	0.048	0.049	0.050	0.048
Std. Devn.	0.0008	0.0008	0.0007	0.0005	0.0005	0.0004	0.0007	0.0007	0.0007	0.0017	0.0004	0.0007	0.0006	0.0003	0.0012
% RSD	1.64	1.57	1.33	0.95	1.04	0.93	1.34	1.51	1.33	3.35	0.83	1.39	1.29	0.63	2.56
	% Pb	% Pb	% Pb	% Pb	% Pb	% Pb	% Pb	% Pb	% Pb	% Pb	% Pb	% Pb	% Pb	% Pb	% Pb
ME-1505-1	1.85	1.84	1.94	1.92	1.89	1.83	1.84	1.89	1.89	1.90	1.81	1.82	1.84	1.84	1.879
ME-1505-2	1.86	1.84	1.94	1.89	1.91	1.84	1.83	1.86	1.88	1.86	1.85	1.82	1.91	1.83	1.869
ME-1505-3	1.86	1.81	1.92	1.90	1.89	1.84	1.84	1.82	1.91	1.75	1.81	1.83	1.86	1.86	1.909
ME-1505-4	1.86	1.84	1.96	1.93	1.92	1.82	1.85	1.86	1.92	1.83	1.81	1.83	1.89	1.83	1.878
ME-1505-5	1.86	1.84	1.93	1.91	1.91	1.85	1.86	1.86	1.91	1.88	1.83	1.84	1.92	1.85	1.879
ME-1505-6	1.86	1.87	1.95	1.91	1.88	1.82	1.86	1.86	1.89	1.75	1.82	1.84	1.91	1.85	1.828
ME-1505-7	1.84	1.83	1.91	1.91	1.87	1.85	1.84	1.82	1.89	1.86	1.81	1.83	1.88	1.84	1.919
ME-1505-8	1.88	1.86	1.94	1.91	1.87	1.83	1.87	1.85	1.90	1.85	1.81	1.85	1.92	1.85	1.949
ME-1505-9	1.92	1.88	1.92	1.91	1.88	1.83	1.86	1.86	1.88	1.83	1.82	1.88	1.91	1.84	1.939
ME-1505-10	1.88	1.85	1.92	1.92	1.88	1.81	1.83	1.78	1.88	1.86	1.82	1.83	1.86	1.85	1.894
Mean	1.86	1.84	1.93	1.91	1.89	1.83	1.85	1.85	1.89	1.84	1.82	1.84	1.89	1.84	1.89
Std. Devn.	0.0211	0.0188	0.0146	0.0110	0.0176	0.0128	0.0138	0.0300	0.0132	0.0503	0.0129	0.0177	0.0287	0.0100	0.0359
% RSD	1.13	1.02	0.76	0.58	0.93	0.70	0.75	1.63	0.70	2.74	0.71	0.96	1.52	0.54	1.89
	% Zn	% Zn	% Zn	% Zn	% Zn	% Zn	% Zn	% Zn	% Zn	% Zn	% Zn	% Zn	% Zn	% Zn	% Zn
ME-1505-1	0.716	0.729	0.744	0.718	0.760	0.708	0.70	0.721	0.740	0.721	0.718	0.701	0.727	0.688	0.703
ME-1505-2	0.716	0.731	0.745	0.722	0.760	0.718	0.70	0.719	0.755	0.702	0.731	0.706	0.732	0.690	0.692
ME-1505-3	0.723	0.712	0.734	0.720	0.750	0.715	0.71	0.716	0.748	0.722	0.716	0.710	0.731	0.693	0.689
ME-1505-4	0.704	0.726	0.747	0.719	0.740	0.711	0.71	0.721	0.749	0.713	0.724	0.707	0.723	0.692	0.682
ME-1505-5	0.711	0.725	0.740	0.734	0.740	0.704	0.71	0.722	0.750	0.698	0.732	0.716	0.743	0.690	0.704
ME-1505-6	0.714	0.735	0.745	0.726	0.750	0.713	0.71	0.717	0.751	0.694	0.729	0.708	0.740	0.689	0.692
ME-1505-7	0.714	0.719	0.732	0.727	0.740	0.709	0.70	0.714	0.745	0.704	0.721	0.712	0.733	0.690	0.706
ME-1505-8	0.715	0.738	0.742	0.718	0.740	0.711	0.70	0.715	0.750	0.725	0.726	0.717	0.733	0.694	0.717
ME-1505-9	0.736	0.742	0.733	0.727	0.740	0.705	0.70	0.724	0.742	0.708	0.731	0.727	0.734	0.697	0.711
ME-1505-10	0.714	0.733	0.732	0.735	0.750	0.709	0.70	0.696	0.755	0.711	0.716	0.716	0.729	0.695	0.695
Mean	0.716	0.729	0.739	0.725	0.747	0.710	0.702	0.717	0.749	0.710	0.724	0.712	0.733	0.692	0.699
Std. Devn.	0.0084	0.0089	0.0061	0.0063	0.0082	0.0042	0.0055	0.0079	0.0050	0.0106	0.0063	0.0073	0.0058	0.0029	0.0108
% RSD	1.17	1.23	0.82	0.87	1.10	0.59	0.78	1.10	0.66	1.49	0.88	1.03	0.79	0.42	1.55

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**Participating Laboratories:**

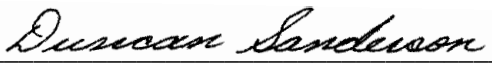
(not in same order as listed in table of results)

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Certified by

  
Duncan Sanderson, Certified Assayer of B.C.

Geochemist

  
Dr. Barry Smee, Ph.D., P. Geo.